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(19) **United States**(12) **Patent Application Publication** (10) Pub. No.: **US 2002/0046042 A1**  
Tamura et al. (43) Pub. Date: **Apr. 18, 2002**(54) **REUSE SYSTEM AND REUSE CONTROL METHOD**(30) **Foreign Application Priority Data**

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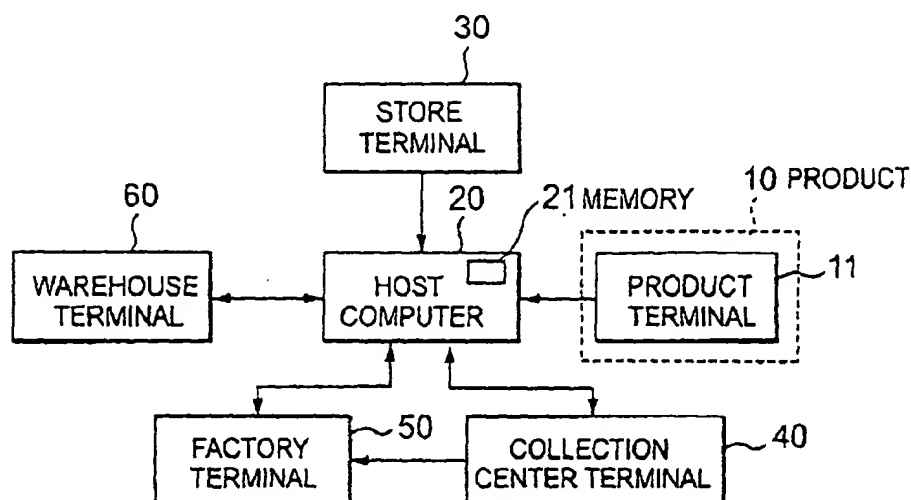
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(57) **ABSTRACT**

A product terminal incorporated in a product sends using state information for each configuring unit in real time to the host computer. The host computer estimates QCD of collected product considering possibility of reuse of each unit of the product, and shares the information with a warehouse center terminal, a factory terminal, and a collection terminal to effectively produce products.



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TITLE: Reuse system and reuse control method

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Current US Classification, US Primary Class/Subclass - CCPR (1):  
705/1

Summary of Invention Paragraph - BSTX (10):

[0009] In Japanese Laid Open Publication No. H11-126008 (namely, 126008/1999), a toner cartridge including ink used for a laser beam printer is provided so as to have a memory to store information related to a history of using parts of the toner cartridge.

Summary of Invention Paragraph - BSTX (11):

[0010] Thereby, it is possible to determine whether or not the toner cartridge can be reused when the toner cartridge is used and collected by a manufacturer.

Summary of Invention Paragraph - BSTX (12):

[0011] Herein, information of each part of the toner cartridge is written to the memory when the toner cartridge is shipped from a factory. In addition, information such as sheets of paper printed by a printer using the toner cartridge is stored in the memory after the toner cartridge is inserted into the printer.

Summary of Invention Paragraph - BSTX (13):

[0012] When the toner cartridge can not work due to lack of toner or other reason, the toner cartridge is removed from the printer and sent back to its manufacturer. After that, the information stored in the memory of the used toner cartridge is read out via a computer to obtain a using history of each part of the toner cartridge. The information is compared with corresponding predetermined value and then, it is determined whether each part can be reused or should be discarded. If it is determined that a part can be reused, the number of times which the part is recycled is stored in the memory and the part

is shipped again.

Summary of Invention Paragraph - BSTX (14):

[0013] In this method, however, the manufacturer of the toner cartridge can not know the information of a using history until the toner cartridge is collected.

Summary of Invention Paragraph - BSTX (17):

[0016] However, in this method, the manufacturer of the toner cartridge can not also know the information related to management of a life cycle before the product is collected and the IC tag is read.